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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/824,445

Applicant(s)

LEE ET AL.

Examiner

ALVIN H. TAN

Art Unit

2173

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 May 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-29 and 31 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-29 and 31 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-8508)
- 4) ☐ Interview Summary (PTO-413)
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____
- Paper No(s)/Mail Date _____

DETAILED ACTION

Remarks

1. This Office action is responsive to the Request for Continued Examination (RCE) filed under 37 CFR §1.53(d) for the instant application on 5/4/09. Applicants have properly set forth the RCE, which has been entered into the application, and an examination on the merits follows herewith.

Claims 1-29 and 31 have been examined and rejected. This Office action is responsive to the amendment filed on 5/4/09, which has been entered in the above identified application.

Specification

2. The disclosure is objected to because of the following informalities:
- a. On *[paragraph 97, line 1]*, Examiner suggests changing "brightness adjusting window 251" to --contrast adjusting window 251--.
- Appropriate correction is required.

Claim Objections

3. The correction(s) to claims 1-30 have been approved, and the objections to the claims are withdrawn.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 1-29 and 31 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

- a. Claim 1 recites the limitation "the plurality of display settings" in *[lines 8 and 9]*. There is insufficient antecedent basis for this limitation in the claim. The claim only recites "a display setting" in *[line 2]*.
- b. Claim 1 recites the limitation "the displayed display setting adjustment windows" in *[line 17]*. There is insufficient antecedent basis for this limitation in the claim. The claim only recites "displaying a displaying setting adjustment window" in *[line 11]*.
- c. Claim 2 recites the limitation "the display settings" in *[lines 1-2]*. There is insufficient antecedent basis for this limitation in the claim.
- d. Claim 31 recites the limitation "the display settings" in *[lines 2-3]*. There is insufficient antecedent basis for this limitation in the claim.
- e. Claim 22 recites the limitation "the plurality of display settings" in *[lines 4-5]*. There is insufficient antecedent basis for this limitation in the claim.
- f. Claim 22 recites the limitation "the displayed display setting adjustment windows" in *[lines 10-11]*. There is insufficient antecedent basis for this

limitation in the claim. The claim only recites "display a displaying setting adjustment window" in *[line 7]*.

- g. Claim 29 recites the limitation "the plurality of display settings" in *[lines 6 and 7]*. There is insufficient antecedent basis for this limitation in the claim. The claim only recites "a display setting" in *[line 2]*.
- h. Claim 29 recites the limitation "the displayed display setting adjustment windows" in *[lines 17 and 18-19]*. There is insufficient antecedent basis for this limitation in the claim. The claim only recites "displaying a displaying setting adjustment window" in *[line 9]*.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1, 7, 8, 22, 29, and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over 3Dlabs, Inc. ("Wildcat II 5110 Graphics Accelerator Card User's Guide", 2000), herein after 3Dlabs, and Ross (U.S. Patent No. 5,943,029).

- 7-1. Regarding claims 1, 22, and 29, 3Dlabs teaches a user interface to change a display setting of a picture area of a display apparatus, which communicates with an

external device, by disclosing [page 19, figure] which shows an interface for configuring the display of a monitor. The monitor is connected to a workstation [page 11].

3Dlabs teaches the claim comprising executing a display setting program in response to a request by a user to execute the display setting program, by disclosing executing the display setting program shown on [page 19] by going to Settings/Control Panel/Display.

3Dlabs teaches displaying a main window in response to the executing according to the user, including a step start button to adjust the plurality of display settings sequentially and menu buttons to separately adjust display setting groups including the plurality of display settings, by disclosing [page 19] which shows a main window with a button labeled "Config Wizard" that activates a step-by-step interface to help modify a current display configuration or create a new one [page 18, "Configuring the Video Display"] as well as tabs to separately adjust resolution and color.

3Dlabs teaches selecting one of the step button and the menu buttons and displaying a setting adjustment window corresponding to the selected button, by disclosing [pages 20, 26].

3Dlabs teaches issuing a command from the external device in correspondence to adjusting the displayed display setting adjustment windows and setting the display setting in correspondence to the command, by disclosing using the selected tab to adjust the resolution, color depth, and refresh rate [page 20] as well as using the configuration wizard to modify display settings [page 18].

As per claim 22, the display apparatus must inherently contain a microprocessor in order to display the wizard window.

3Dlabs does not expressly teach executing a display setting program based on extended display identification data (EDID) stored in the display apparatus. Ross discloses that a display data channel (DDC) monitor stores information regarding the capabilities of the monitor in a data format called an extended display identification (EDID) [column 1, lines 10-16]. A system setup program (SSP) allows configuration of the display settings for a DDC monitor [column 3, lines 44-47; column 4, lines 38-41]. When the SSP is executed, the available settings are based on the EDID stored in the monitor [column 5, lines 1-13]. The EDID standard is used to promote greater monitor/host computer compatibility [column 1, lines 16-18]. Since 3Dlabs discloses changing display settings of a display apparatus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the EDID standard for storing information about the monitor and using that information when executing a display setting program, as taught by Ross. This would promote greater monitor/host computer compatibility.

7-2. Regarding claim 7, 3Dlabs and Ross teach the claim wherein at least one of the display setting adjustment windows comprise an undo button to undo the display setting adjustment, by disclosing a cancel button as shown in [3Dlabs, page 20, figure].

7-3. Regarding claim 8, 3Dlabs and Ross teach the claim wherein at least one of the display setting adjustment windows comprise a reset button to return the display setting to a default setting, by disclosing that the user can select a default Direct3D setting [page 25, "EnablingDirect3D Optimizations"].

7-4. Regarding claim 31, 3Dlabs and Ross teach the claim wherein the display setting adjustment window comprises a plurality of setting buttons corresponding to the display settings, by disclosing [3Dlabs, page 20, figure].

3Dlabs and Ross teach the method further comprising activating one of setting buttons corresponding to the capable setting of the display apparatus based on the EDID, by disclosing that when setting up a display device, information such as refresh rate and resolution are obtained based on the EDID [Ross, column 4, lines 14-18; line 52 to column 5, line 28].

8. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over 3Dlabs, Inc. ("Wildcat II 5110 Graphics Accelerator Card User's Guide", 2000), Ross (U.S. Patent No. 5,943,029), and Narui (U.S. Patent No. 6,278,433 B2).

8-1. Regarding claim 2, 3Dlabs and Ross teach the claim wherein the display settings includes at least two of a picture position, a color temperature, a resolution, clock and phase, a contrast, and a brightness, by disclosing changing the resolution and color [3Dlabs, page 20].

Although 3Dlabs and Ross disclose using a wizard to modify the current display configuration [*3Dlabs, page 18*], 3Dlabs and Ross do not expressly teach the displaying display setting adjustment window comprises sequentially displaying display setting adjustment windows to adjust at least two of a picture position, a color temperature, a resolution, clock and phase and a brightness if the step button is selected. Narui discloses a sequence of windows for adjusting monitor parameters including resolution, brightness, size, center position, and tilt position [*Narui, column 3, lines 33-49*]. This provides a user with a convenient way of adjusting monitor settings. Since 3Dlabs and Ross disclose adjusting display settings, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include in the wizard of 3Dlabs and Ross, adjusting resolution, brightness, size, center position, and tilt position, as taught by Narui. This would provide a more convenient way of adjusting monitor settings.

9. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over 3Dlabs, Inc. ("Wildcat II 5110 Graphics Accelerator Card User's Guide", 2000), Ross (U.S. Patent No. 5,943,029), and Naito (U.S. Patent No. 6,693,629 B1).

9-1. Regarding claim 3, 3Dlabs and Ross teach the claim as recited in claim 1. 3Dlabs and Ross further teach the claim wherein the display setting adjustments are selected from a color temperature adjustment and a resolution adjustment, by disclosing adjusting the resolution and color [*3Dlabs, page 20*].

3Dlabs and Ross do not expressly teach a picture position adjustment, clock and phase adjustments, a contrast adjustment, and brightness adjustment. Naito teaches allowing users to adjust and save settings for a display device [column 2, line 62 to column 3, line 3]. Users can adjust parameters including clock and phase, position, contrast, brightness, and color [column 8, lines 27-38]. This allows users to adjust the image quality of the display device as they see fit. Since 3Dlabs and Ross teach adjusting a display device, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include options to adjust a picture position, clock and phase, contrast and brightness, as taught by Naito. This would give the users additional settings for adjusting the image quality of the display device as they see fit.

10. Claims 4-6 and 23-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over 3Dlabs, Inc. ("Wildcat II 5110 Graphics Accelerator Card User's Guide", 2000), Ross (U.S. Patent No. 5,943,029), and Applicant's admission of prior art.

10-1. Regarding claims 4 and 5, 3Dlabs and Ross teach the claim as recited in claim 1. Although 3Dlabs and Ross disclose saving a display configuration at the end of the Wizard [page 25, "Enabling application-specific optimizations", step 4; page 26, step 6], 3Dlabs and Ross do not expressly teach wherein a last display setting adjustment window in the sequence includes a button to open an adjustment save window to save adjusted display settings. The statement that it is common for programs to include a save menu button for opening a save window to save program data is taken to be

admitted prior art because Applicant has failed to traverse the Examiner's assertion of official notice. See MPEP 2144.03 C. Save menu buttons can be seen in many commonly used Windows applications such as Microsoft Word and Microsoft Excel. This provides users with an intuitive way to save data to a file. Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include a button to open a save window to save the adjusted display settings since Applicant admits that it is common for programs to include a save menu button for opening a save window to save program data. Such a menu button would provide the user with an intuitive way to save data to a file.

10-2. Regarding claim 6, 3Dlabs and Ross teach the claim further comprising opening the file and adjusting a display setting on the basis of the saved adjusted display setting in the opened file, by disclosing that the user can modify existing configurations [*page 18, "Using the Wildcat Configuration tab", step 4*].

10-3. Regarding claim 23, 3Dlabs and Ross teach the claim as recited in claim 22. Although 3Dlabs and Ross teach a display monitor [*3Dlabs, page 11*], 3Dlabs and Ross do not expressly teach a scalar to fit the digitalized signal to the size of an LCD panel and transmitting the digitalized signal to a panel driving part operating the LCD panel. The statement that liquid crystal displays (LCD) are commonly used as a display device for computers is taken to be admitted prior art because Applicant has failed to traverse the Examiner's assertion of official notice. See MPEP 2144.03 C. LCDs are lighter in

weight than CRT monitors. Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use an LCD monitor as the display device since Applicant admits that LCD monitors are commonly used as display devices. This would provide a lightweight alternative to the traditional CRT displays. The LCD monitor would inherently comprise an A/D converter, a scalar, a backlight, and a power supply.

10-4. Regarding claim 24, 3Dlabs and Ross teach a graphic controller connected to the interface, by disclosing [3Dlabs, page 3].

3Dlabs and Ross teach a stored display setting program to provide the main window, to issue the command, by disclosing [3Dlabs, page 19].

It is inherent that the display setting program transmits the command and a programming signal to provide the main window to the graphic controller, which converts the programming signal into a video signal, and the graphic controller transmits the converted video signal and the command to the display apparatus through the interface.

10-5. Regarding claim 25, the microprocessor of 3Dlabs inherently controls the A/D controller, the scalar, and the panel driving part according to commands from the graphic controller.

10-6. Regarding claim 26, 3Dlabs and Ross teach wherein when a user selects an item with an input unit, the display setting program issues a corresponding command to the

graphic controller to adjust a corresponding display setting, by disclosing that when a user changes a setting for the display device, a corresponding display setting is changed [*3Dlabs, page 20*].

11. Claims 9-11, 14, 17, 18, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over 3Dlabs, Inc. ("Wildcat II 5110 Graphics Accelerator Card User's Guide", 2000), Ross (U.S. Patent No. 5,943,029), Fukumoto et al (Pub. No. US 2002/0054146 A1), Naito (U.S. Patent No. 6,693,629 B1), and McLaughlin et al (U.S. Patent No. 5,739,809).

11-1. Regarding claim 9, 3Dlabs and Ross teach the claim wherein the menu button is plural in number, by disclosing various tabs in the interface [*3Dlabs, page 20, figure*].

3Dlabs and Ross disclose a display button corresponding to a resolution setting [*3Dlabs, page 20*], but do not expressly teach a display button corresponding to a first setting group including a resolution setting, a brightness setting, a contrast setting, and a clock and phase setting and a geometry button corresponding to a second setting group including a position setting. Fukumoto discloses a menu that is organized in a way that groups related items together. As shown in [*Fukumoto, figure 2*], separate menus are displayed that relate to the display (image quality) and geometry (image quality mode) of the display device. Providing the hierarchical menu and grouping the items in this way allows users to be able to more intuitively select a specific item to adjust. Although the image quality menu of Fukumoto teaches a brightness setting, it

does not explicitly teach a resolution and contrast setting. However, Fukumoto does teach allowing the user to customize menus in whatever way the user sees fit as shown in [Fukumoto, figures 7A-7C]. The list of settings provided for selection relates to adjustable settings for a display and includes contrast. Thus, the user is fully capable of creating a display button for grouping specific settings selected. It would have been obvious to one of ordinary skill in the art to include the customized menu system as taught by Fukumoto, to organize menus for grouping related display settings including resolution as taught by 3Dlabs. Such a combination would yield a predictable result. Thus, settings for the resolution, brightness, and contrast would be grouped together in a menu. This would allow users to more intuitively select a specific item to adjust.

3Dlabs, Ross, and Fukumoto do not expressly teach the display button including a clock and phase setting. Naito teaches allowing users to adjust and save settings for a display device [column 2, line 62 to column 3, line 3]. Users can adjust parameters including clock and phase [column 8, lines 27-31]. This gives the user an additional setting for adjusting the image quality of the display device. Since 3Dlabs, Ross, and Fukumoto teach adjusting a display device, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include in the menu relating to the display, a clock and phase adjustment, as taught by Naito. This would give the users an additional setting for adjusting the image quality of the display device as they see fit.

3Dlabs, Ross, Fukumoto, and Naito do not expressly teach a color button corresponding to a third setting group including a calibration setting and a color

temperature setting. McLaughlin teaches a method and apparatus for calibrating a display device [column 1, lines 10-16]. A color button item relating to adjusting color is provided [figure 3; column 9, line 56 to column 11, line 7]. This provides the user with an additional setting for adjusting the display device. Since 3DLabs, Ross, Fukumoto, and Naito teach adjusting a display device, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include in the hierarchical menu, a color button for adjusting a calibration setting and a color temperature setting, as taught by McLaughlin. This provides the user with an additional setting for adjusting the display device.

11-2. Regarding claim 10, 3DLabs, Ross, Fukumoto, Naito, and McLaughlin teach the claim wherein when the display button is selected, a display adjusting window is opened, the display adjusting window comprising a resolution button corresponding to the resolution setting, a brightness button corresponding to the brightness setting, a contrast button corresponding to the contrast setting, and a picture setup button corresponding to the clock and phase setting, is opened, by disclosing that when the image quality menu button is selected from the main menu, an image quality submenu is displayed on the screen along with buttons to allow users to adjust the items contained within the submenu [Fukumoto, paragraphs 35-37]. As discussed in claim 9, the image quality submenu would contain a resolution, brightness, contrast, and clock and phase adjustment setting.

11-3. Regarding claim 11, 3Dlabs, Ross, Fukumoto, Naito, and McLaughlin teach the claim wherein when one of the buttons is selected, an adjusting window, in which a display setting adjustment corresponding to the selected button is made, is opened, by disclosing opening windows to adjust a display setting [*McLaughlin, figures 5-8*]. Rather than adjusting values within the submenu, opening a new window to adjust display settings allows more screen real estate for providing various controls in making the adjustment. It would have been obvious to one of ordinary skill in the art at the time the invention was made to open an adjusting window when one of the buttons is selected, as taught by McLaughlin. This would allow more screen real estate for providing various controls in making the adjustment.

11-4. Regarding claim 14, 3Dlabs, Ross, Fukumoto, Naito, and McLaughlin teach the claim wherein when the geometry button is selected, a geometry setting window, including a position button, corresponding to the second setting group, is opened, by disclosing image quality mode submenu including buttons to allow users to adjust the position of the display device [*Fukumoto, figure 2*].

11-5. Regarding claim 17, 3Dlabs, Ross, Fukumoto, Naito, and McLaughlin teach the claim wherein when the color button is selected, a color adjusting window, including a calibration button corresponding to a calibration setting and a color temperature button corresponding to a color temperature of the picture displayed by the display apparatus, is opened, by disclosing that the hierarchical menu would have a color button item

relating to adjusting a calibration setting and color temperature as discussed in claim 9 above.

11-6. Regarding claim 18, 3Dlabs, Ross, Fukumoto, Naito, and McLaughlin teach the claim wherein when a user selects the color temperature button, a color temperature adjusting window, in which a color temperature of a picture displayed by the display apparatus is adjusted, is opened, by disclosing a color button item relating to adjusting color is provided that, when selected, opens a window for adjusting color settings *[McLaughlin, figures 3, 6; column 9, line 56 to column 11, line 7]*.

11-7. Regarding claim 20, 3Dlabs, Ross, Fukumoto, Naito, and McLaughlin teach the claim wherein the adjusting window comprises an undo button to undo a color temperature adjustment, by disclosing a cancel button that returns any adjusted values to their previously saved values *[McLaughlin, column 11, lines 8-14]*.

3Dlabs, Ross, Fukumoto, Naito, and McLaughlin teach an animation window to show an animation of a color temperature adjustment, by disclosing that the main display displays current settings of the color as they are adjusted by the user *[McLaughlin, column 10, lines 29-32]*.

3Dlabs, Ross, Fukumoto, Naito, and McLaughlin disclose providing pre-set recommended adjustments to the various settings of the display device *[3Dlabs, page 25, "Enabling application-specific optimizations"]*. Since color temperature is one of the settings adjustable by the user *[McLaughlin, column 15, lines 21-36]*, it would have been

obvious to one of ordinary skill in the art to include displaying recommended values, as taught by 3Dlabs, for color temperature.

12. Claims 12, 15, and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over 3Dlabs, Inc. ("Wildcat II 5110 Graphics Accelerator Card User's Guide", 2000), Ross (U.S. Patent No. 5,943,029), Fukumoto et al (Pub. No. US 2002/0054146 A1), Naito (U.S. Patent No. 6,693,629 B1), McLaughlin et al (U.S. Patent No. 5,739,809), and Yamamoto (U.S. patent No. 6,343,147 B2).

12-1. Regarding claim 12, 3Dlabs, Ross, Fukumoto, Naito, and McLaughlin teach the claim as recited in claim 11. 3Dlabs, Ross, Fukumoto, Naito, and McLaughlin do not expressly teach wherein the adjusting window comprises a pattern activating button to open a pattern window having an image which is changed as the display setting adjustment are made in the adjusting window. Yamamoto teaches an image processing method and apparatus for adjusting settings of an image [column 2, lines 27-32]. Users can adjust settings of the monitor and preview the adjusted settings [figures 7, 6]. This allows the user to preview settings before confirming them. Since 3Dlabs, Ross, Fukumoto, Naito, and McLaughlin teach adjusting settings of a display device, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include a button for opening a preview window having an image that is changed based on adjustments made on the settings of the display, as taught by Yamamoto. This would allow users to preview settings before confirming them.

12-2. Regarding claim 15, 3Dlabs, Ross, Fukumoto, Naito, and McLaughlin teach the claim as recited in claim 14. 3Dlabs, Ross, Fukumoto, Naito, and McLaughlin do not expressly teach wherein the adjusting window comprises a pattern activating button to open a pattern window having a picture which is changed as the display setting adjustment are made in the adjusting window. Yamamoto teaches an image processing method and apparatus for adjusting settings of an image [column 2, lines 27-32]. Users can adjust settings of the monitor and then preview the adjusted settings [figures 7, 6]. This allows the user to preview settings before confirming them. Since 3Dlabs, Ross, Fukumoto, Naito, and McLaughlin teach adjusting settings of a display device, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include a button for opening a preview window having a picture that is changed based on adjustments made in the adjustment window, as taught by Yamamoto. This would allow users to preview settings before confirming them.

12-3. Regarding claim 19, 3Dlabs, Ross, Fukumoto, Naito, and McLaughlin teach the claim as recited in claim 18. 3Dlabs, Ross, Fukumoto, Naito, and McLaughlin do not expressly teach wherein the color temperature adjusting window comprises a pattern activating button, wherein when the pattern activating button is selected, a color temperature pattern window, having a picture with a color temperature that is changed as the color temperature is adjusted in the color temperature adjustment window, is opened. Yamamoto teaches an image processing method and apparatus for adjusting

settings of an image [column 2, lines 27-32]. Users can adjust settings of the monitor, including color temperature, and then preview the adjusted settings [figures 7, 6]. This allows the user to preview settings before confirming them. Since 3Dlabs, Ross, Fukumoto, Naito, and McLaughlin teach adjusting settings of a display device, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include a button for opening a preview window having a picture with a color temperature that is changed as the color temperature is adjusted in a color temperature adjusting window, as taught by Yamamoto. This would allow users to preview settings before confirming them.

13. Claims 13 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over 3Dlabs, Inc. ("Wildcat II 5110 Graphics Accelerator Card User's Guide", 2000), Ross (U.S. Patent No. 5,943,029), Fukumoto et al (Pub. No. US 2002/0054146 A1), Naito (U.S. Patent No. 6,693,629 B1), McLaughlin et al (U.S. Patent No. 5,739,809), and Hidetoshi (JP 09-281942).

13-1. Regarding claim 13, 3Dlabs, Ross, Fukumoto, Naito, and McLaughlin teach the claim as recited in claim 11. 3Dlabs, Ross, Fukumoto, Naito, and McLaughlin further teach wherein the adjusting window comprises an undo button to undo the display setting adjustment, by disclosing a cancel button as shown in [3Dlabs, page 20, figure].

3Dlabs, Ross, Fukumoto, Naito, and McLaughlin teach an animation window to show an animation of the display setting adjustment, by disclosing that the main display

displays current settings such as brightness and contrast as they are adjusted by the user [McLaughlin, column 9, lines 35-40].

3Dlabs, Ross, Fukumoto, Naito, and McLaughlin do not expressly teach a reset button to return the display setting to a default setting. Hidetoshi teaches screen adjustment for display devices [paragraph 1]. A reset button is provided that cancels any adjustments made and returns screen settings to a standard value [paragraph 13]. This allows users to restore default screen settings. Since 3Dlabs, Ross, Fukumoto, Naito, and McLaughlin teach adjusting a display device, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include a reset button for returning the display setting to a default setting, as taught by Hidetoshi. This is useful in cases where a user wishes to cancel any adjustments made and restore the screen settings to a default setting.

13-2. Regarding claim 16, 3Dlabs, Ross, Fukumoto, Naito, and McLaughlin teach the claim as recited in claim 14. 3Dlabs, Ross, Fukumoto, Naito, and McLaughlin further teach wherein the adjusting window comprises an undo button to undo a position adjustment, by disclosing a cancel button as shown in [3Dlabs, page 20, figure].

3Dlabs, Ross, Fukumoto, Naito, and McLaughlin teach an animation window to show an animation of the display setting adjustment, by disclosing that the main display displays current settings of the position as they are adjusted by the user [McLaughlin, column 12, lines 54-58].

3Dlabs, Ross, Fukumoto, Naito, and McLaughlin do not expressly teach a reset button to return the display setting to a default setting. Hidetoshi teaches screen adjustment for display devices [*paragraph 1*]. A reset button is provided that cancels any adjustments made and returns screen settings to a standard value [*paragraph 13*]. This allows users to restore default screen settings. Since 3Dlabs, Ross, Fukumoto, Naito, and McLaughlin teach adjusting a display device, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include a reset button for returning the display setting to a default setting, as taught by Hidetoshi. This is useful in cases where a user wishes to cancel any adjustments made and restore the screen settings to a default setting.

14. Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over 3Dlabs, Inc. ("Wildcat II 5110 Graphics Accelerator Card User's Guide", 2000), Ross (U.S. Patent No. 5,943,029), Fukumoto et al (Pub. No. US 2002/0054146 A1), Naito (U.S. Patent No. 6,693,629 B1), McLaughlin et al (U.S. Patent No. 5,739,809), and Applicant's admission of prior art.

14-1. Regarding claim 21, 3Dlabs, Ross, Fukumoto, Naito, and McLaughlin teach the claim as recited in claim 9. 3Dlabs, Ross, Fukumoto, Naito, and McLaughlin further teach wherein the menu further comprises addition buttons for opening additional option and support windows, by disclosing the hierarchical menu as shown in [*Fukumoto, figure 2*]. The main menu contains a various setting button that allows users to further

select additional options. Examiner notes that there are no limitations within the claim that associate any further functional control with the buttons. 3Dlabs, Ross, Fukumoto, Naito, and McLaughlin do not expressly teach a magic bright, preference, upgrade, technical, asset ID, and version button. The statement that it is common to include additional buttons on a main menu for providing functional operations as well as display descriptive information about the application being used is taken to be admitted prior art because Applicant has failed to traverse the Examiner's assertion of official notice. See MPEP 2144.03 C. The additional buttons would provide a user intuitive method of selecting a function of the program. Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include the additional buttons on the menu, since Applicant admits that it is common to include additional buttons on a main menu for providing functional operations as well as display descriptive information about the application being used.

15. Claims 27 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over 3Dlabs, Inc. ("Wildcat II 5110 Graphics Accelerator Card User's Guide", 2000), Ross (U.S. Patent No. 5,943,029), and Arai (Pub. No. US 2003/0197659 A1).

15-1. Regarding claim 27, 3Dlabs and Ross teach the claim as recited in claim 22. 3Dlabs and Ross do not expressly teach the claim wherein the interface employs a Display Data Channel Common Interface. Arai teaches a computer (11) connected to an image display apparatus (13) [figure 1]. A two-way communication interface such as

DDC-CI may be used [paragraph 87]. Using the standard simplifies software and hardware configurations in the PC and the display monitor. Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use DDC-CI as an interface to communicate with the computer, as taught by Arai. This would simplify software and hardware configurations in the PC and the display monitor.

15-2. Regarding claim 28, 3Dlabs and Ross teach the claim as recited in claim 22. 3Dlabs and Ross do not expressly teach wherein the interface employs a Universal Serial Bus (USB). Arai teaches a computer (11) connected to an image display apparatus (13) [figure 1]. A two-way communication interface such as USB may be used [paragraph 87]. Using the standard simplifies software and hardware configurations in the PC and the display monitor. Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use USB as an interface to communicate with the computer, as taught by Arai. This would simplify software and hardware configurations in the PC and the display monitor.

Response to Arguments

16. The Examiner acknowledges the Applicant's amendments to claims 1, 2, 9, 22, and 29, the cancellation of claim 30, and the addition of claim 31. Regarding independent claim 1, the Applicant alleges that Narui (U.S. Patent No. 6,278,433 B2) and Ross (U.S. Patent No. 5,943,029), as described in the previous Office action, does not explicitly teach displaying a main window in response to the executing according to

the user, including a step button to adjust the plurality of display settings sequentially and menu buttons to separately adjust display setting groups including the plurality of display settings; selecting one of the step button and the menu buttons, as has been amended to the claim. Examiner has therefore rejected independent claim 1 under 35 U.S.C § 103 as being unpatentable over 3Dlabs, Inc. ("Wildcat II 5110 Graphics Accelerator Card User's Guide", 2000) and Ross. Applicant's arguments with respect to claim 1 has been considered but are moot in view of the new ground(s) of rejection.

Independent claims 22 and 29 have been similarly amended and thus, the claims have been rejected under 35 U.S.C § 103 as being unpatentable under 3Dlabs and Ross.

Applicant states that dependent claims 2-21, 23-28, and 31 recite all the limitations of the independent claims, and thus, are allowable in view of the remarks set forth regarding independent claims 1, 22, and 29. However, as discussed above, 3Dlabs and Ross are considered to teach claims 1, 22, and 29, and consequently, claims 2-21, 23-28, and 31 are rejected.

Conclusion

17. The prior art made of record on attached form PTO-892 and not relied upon is considered pertinent to applicant's disclosure. Applicant is required under 37 C.F.R § 111(c) to consider these references fully when responding to this action. The documents cited therein teach similar systems for adjusting display settings of a display apparatus.

18. Any inquiry concerning this communication or earlier communications from the examiner should be directed to ALVIN H. TAN whose telephone number is (571)272-8595. The examiner can normally be reached on Mon-Fri 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kieu Vu can be reached on 571-272-4057. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Alvin H Tan/
Examiner, Art Unit 2173